

IN THE CLAIMS

Amend the following claims 1, 5, 12-30.

Sub B1
A2
1. A formulation for application to a mucosal tissue selected from the group consisting of nasal, ophthalmic, oral cavity, gastrointestinal, respiratory, vaginal and rectal, the formulation comprising

(a) a biologically active agent selected from the group consisting of antibiotic, antiviral agent, antifungal agent, disinfectant, nutrient, anti-inflammatory agent, local anesthetic and essential oil; and

(b) a lipid carrier, said lipid carrier including at least one lipid selected from the group of amphiphilic phospholipids consisting of yolk lecithin, Soya lecithin, phosphatidylglycerol and phosphatidylcholine, said lipid being characterized as an emulsion of lipid droplets dispersed in an aqueous medium, and said lipid and said biologically active agent being present in a ration of from about 10:1 to about 1:10, such that said biologically active agent is carried by said lipid of said lipid carrier and said biologically active agent is thereby released from said lipid in a sustained manner and over a prolonged period of time, such that said lipid carrier has a property of high adhesion to the mucosal tissue.

A3
5. The formulation of claim 1, wherein said disinfectant is selected from the group consisting of chlorhexidine, chlorhexidine salts, triclosan, cetrimide, and cetylpyridinium chloride.

12. The formulation of claim 1, wherein said biologically active agent is further characterized by having activity in the oral cavity, said activity being suitable for treatment of at least one condition selected from the group consisting of gum disease, caries, dry mouth, malodorous breath, and microbial infection.

13. The formulation of claim 12, wherein said microbial infection [includes an infection] is selected from the group consisting of bacterial, viral and fungal.

14. The formulation of claim 1, wherein said biologically active agent is further characterized by having activity on a tissue selected from the group consisting of nasal, ophthalmic, vicinal, and rectal, said activity being suitable for treatment of at least one condition selected from the group consisting of inflammation, irritation, dryness and microbial infection.

15. The formulation of claim 14, wherein said microbial infection [includes an infection] is selected from the group consisting of bacterial, viral and fungal.

16. The formulation of claim 1, wherein said lipid in (b) and said biologically active agent in (a) are present in a ratio of from about 5:1 to about 1:5.

17. Claim 17 depends on claim 16, as amended above.

18. The formulation of claim 1, further comprising a stabilizer, said stabilizer having at least one surfactant selected from the group consisting of non-ionic, anionic, cationic and amphiphilic.

19. The formulation of claim 18, wherein said non-ionic surfactant is selected from the group consisting of a polyethylene glycol derivative and a glycerol derivative.

20 The formulation of claim 19, wherein said polyethylene glycol derivative is selected from the group consisting of Tween, triton, tyloxapol, pluronic, Brij, Span, poloxamer and emulphor.

21. The formulation of claim 19, wherein said glycerol derivative is selected from the group consisting of polyglycerine and polyalkylglyceride.

22. The formulation of claim 18, wherein said anionic surfactant is selected from the group consisting of carboxylate, alkyl sulphonate, aryl sulphonate and phosphate.

23. The formulation of claim 18 wherein said cationic surfactant is selected from the group consisting of alkyl pyridinium salt and tetra-alkylammonium salt.

24. The formulation of claim 18, wherein said amphiphilic surfactant is selected from the group consisting of alkyl betaine derivative, cocoamphodiacetate derivative, lauroamphoacetate and phosphatidylglycerol.

25. The formulation of claim 1, further comprising at least one lipid additive selected from the group consisting of triglyceride, alkyl ester, cholesterol, triolein, edible oil, medium chain glycerate, isopropylmyristate and cholesterol ester.

26. The formulation of claim 1, further comprising at least one additive selected from the group consisting of flavor, aroma modifier, sweetener, color, and antioxidant.

27. Claim 27 depends on amended claim 26.

28. The formulation of claim 1, wherein said lipid is in the form of a dispersion having lipid particles of size in the range of from about 50 to about 300 nm.

29. A method of administering a formulation to a mucosal tissue, wherein said mucosal tissue is selected from the group consisting of nasal, ophthalmic, oral cavity, gastrointestinal, respiratory, vaginal and rectal, comprising the steps of

- (a) providing the formulation, the formulation featuring
- (i) a biologically active agent selected from the group consisting of antibiotic, antiviral agent, antifungal agent, disinfectant, nutrient, anti-inflammatory agent, local anesthetic and essential oil; and
 - (ii) a lipid carrier, said lipid carrier including at least one lipid selected from the group of amphiphilic phospholipids consisting of yolk lecithin, Soya lecithin, phosphatidylglycerol and phosphatidylcholine, said lipid being characterized as an emulsion of lipid droplets dispersed in an aqueous medium, and said lipid and said biologically active agent being present in a ration of from about 10:1 to about 1:10, such that said biologically active agent is carried by said lipid of said lipid carrier and said biologically active agent is thereby released from said lipid in a sustained manner and over a prolonged period of time, such that said lipid carrier has a property of high adhesion to the mucosal tissue; and
- (b) administering the formulation to the mucosal tissue.

30. Claim 30 depends on amended claim 29.